THE AGARICACEAE

OF

MICHIGAN

C. H. KAUFFMAN

The D. H. Hill Library

North Carolina State University
QH105
M5
A3
no.5
v.2

NORTH CAROLINA STATE UNIVERSITY LIBRARIES
S02514725 Q

W. O. Hotchkiss
Madison, Wis.

THIS BOOK IS DUE ON THE DATE INDICATED BELOW AND IS SUBJECT TO AN OVERDUE FINE AS POSTED AT THE CIRCULATION DESK.

MICHIGAN GEOLOGICAL AND BIOLOGICAL SURVEY

Publication 26

Biological Series 5

THE AGARICACEAE OF MICHIGAN

BY

C. H. KAUFFMAN

VOL. II

PLATES

PUBLISHED AS A PART OF THE ANNUAL REPORT OF THE BOARD OF GEOLOGICAL AND BIOLOGICAL SURVEY FOR 1918.

LANSING, MICHIGAN
WYNKOOP HALLENBECK CRAWFORD CO., STATE PRINTERS
1918

BOARD OF GEOLOGICAL AND BIOLOGICAL SURVEY, 1918.

EX OFFICIO:

THE GOVERNOR OF THE STATE,

HON. ALBERT E. SLEEPER.

THE SUPERINTENDENT OF PUBLIC INSTRUCTION,

HON. FRED L. KEELER.

THE PRESIDENT OF THE STATE BOARD OF EDUCATION,

HON. FRANK L. CODY.

DIRECTOR,

R. C. ALLEN.

SCIENTIFIC ADVISORS.

Geologists.—Dr. L. L. Hubbard, Houghton; Prof. W. H. Hobbs, Ann Arbor; Prof. W. H. Sherzer, Ypsilanti; Prof. E. C. Case, Ann Arbor.

Botanists.—Prof. E. A. Bessey, East Lansing; Prof. F. C. Newcomb, Ann Arbor.

Zoologists.—Prof. W. B. Barrows, East Lansing; Prof. J. Reighard, Ann Arbor; Dr. Bryant Walker, Detroit.

79500

THE AGARICACEAE OF MICHIGAN

PLATES

PLATES

Plate I. Nyctalis asterophora
Plate II. Cantherellus clavatus
Cantherellus cinnabarinus
Plate III. Cantherellus cibarius
Plate IV. Panus strigosus
Plate V. Panus rudis
Plate VI. Lentinus lepidens
Plate VII. Marasmius urens
Plate VIII. Marasmius calopus
Plate IX. Lactarius piperatus
Plate X. Lactarius insulsus
Plate XI. Lactarius deliciosus
Plate XII. Lactarius volemus
Plate XIII. Lactarius camphoratus
Plate XIV. Russula sordida
Plate XV. Russula ochraleucoides
Plate XVI. Russula pulverulenta
Plate XVII. Russula foetens
Plate XVIII. Russula mariae
Plate XIX. Russula rubescens
Plate XX. Russula tenuiceps
Plate XXI. Russula purpurina
Plate XXII. Russula lutea
Plate XXIII. Gomphidius maculatus
Plate XXIV. Hygrophorus speciosus
Plate XXV. Hygrophorus olivaceo-albus
Plate XXVI. Hygrophorus Russula
Plate XXVII. Hygrophorus sordidus
Plate XXVIII. Hygrophorus fusco-albus var. occidentalis
Plate XXIX. Hygrophorus colemannianus
Hygrophorus pallidus
Plate XXX. Hygrophorus coccineus
Plate XXXI. Hygrophorus marginatus
Plate XXXII. Coprinus sterquilinus
Plate XXXIII. Coprinus insignis
Plate XXXIV. Coprinus quadrifidus
Plate XXXV. Coprinus ebulbosus
Plate XXXVI. Coprinus ebulbosus
Plate XXXVII. Coprinus laniger
Plate XXXVIII. Coprinus fimetarius
Coprinus domesticus
Plate XXXIX. Coprinus micaceous
Plate XL. Coprinus micaceous
Coprinus bulbilosus
Plate XLI. Coprinus sclerotigenus
Coprinus sclerotigenus
Coprinus narcoticus
Plate XLII. Coprinus patouillardi
Coprinus ephemerus
Plate XLIII. Coprinus ephemerus 2-spored
Coprinus ephemerus 2-spored
Plate XLIV. Panoeolus solidipes
Plate XLV. Psalliota rodmani
Plate XLVI. Psalliota arvensis
Plate XLVII. Psalliota abruptibulba

Plate XLVIII ..... Psalliota subrufescens
Plate XLIX ..... Psalliota subrufescens
Plate L ..... Psalliota subrufescens
Psalliota diminutiva
Plate LI ..... Stropharia umbonatescens
Hypholoma sublateritius
Plate LII ..... Hypholoma lachrymabundum
Plate LIII ..... Hypholoma velutinum
Plate LIV ..... Hypholoma incertum, and Psilocybe foenisecii
Plate LV ..... Psilocybe sp., Psathyra sp., and Tubaria sp.
Plate LVI ..... Psathyra umbonata
Psilocybe atrobrunnea
Plate LVII ..... Psilocybe larga
Plate LVIII ..... Psilocybe cernua
Plate LIX ..... Pholiota praecox
Plate LX ..... Pholiota destruens
Plate LXI ..... Pholiota spectabilis
Plate LXII ..... Pholiota aeruginosa
Plate LXIII ..... Cortinarius mucifluus
Plate LXIV ..... Cortinarius cylindripes
Plate LXV ..... Cortinarius sphoerosporus
Plate LXVI ..... Cortinarius iodeoides
Plate LXVII ..... Cortinarius atkinsonianus
Plate LXVIII ..... Cortinarius calochrous
Plate LXIX ..... Cortinarius elegantoides
Plate LXX ..... Cortinarius sphoerosperma
Plate LXXI ..... Cortinarius purpurascens
Cortinarius fulmineus var. sulphurens
Plate LXXII ..... Cortinarius multiformis
Plate LXXIII ..... Cortinarius intrusus
Cortinarius infractus
Plate LXXIV ..... Cortinarius coloratus
Plate LXXV ..... Cortinarius subpulchrifolius
Plate LXXVI ..... Cortinarius pholideus
Plate LXXVII ..... Cortinarius bolaris
Plate LXXVIII ..... Cortinarius annulatus
Plate LXXIX ..... Cortinarius flavifolius
Plate LXXX ..... Cortinarius flavifolius
Plate LXXXI ..... Cortinarius croceocolor
Plate LXXXII ..... Cortinarius lilacinus
Plate LXXXIII ..... Cortinarius torvus
Plate LXXXIV ..... Cortinarius decceptivus
Plate LXXXV ..... Cortinarius armillatus
Plate LXXXVI ..... Cortinarius armillatus
Plate LXXXVII ..... Cortinarius badius
Cortinarius lignaris
Plate LXXXVIII ..... Cortinarius distans
Plate LXXXIX ..... Cortinarius paleaceus
Plate XC ..... Cortinarius glabellus
Plate XCI ..... Inocybe calospora
Plate XCII ..... Inocybe frumentacea var. jurana
Plate XCIII ..... Inocybe fastigiata
Plate XCIV ..... Inocybe fibrosa
Plate XCV ..... Inocybe repanda
Plate XCVI ..... Hebeloma sinapizans
Plate XCVII ..... Hebeloma crustuliniforme var. sphagnophilum
Galera sp.
Plate XCVIII ..... Pluteolus expansus
Plate XCIX ..... Pluteolus reticulatus
Naucoria semiorbicularis
Plate C ..... Volvaria bombycina
Plate CI ..... Volvaria pusilla
Chamaeota sphaerospora
Plate CII ..... Chamaeota sphaerospora
Plate CIII ..... Pluteus cervinus

Plate CIV. Pluteus longistriatus
Plate CV. Entoloma rhodopolium
Plate CVI. Entoloma sericeum
Plate CVII. Entoloma strictius
Plate CVIII. Entoloma grayanum
Plate CIX. Entoloma speculum
Plate CX. Entoloma cuspidatum
Plate CXI. Clitopilus abortivus
Plate CXII. Clitopilus caespitosus
Plate CXIII. Clitopilus caespitosus
Plate CXIV. Leptonia placida
Leptonia risea
Plate CXV. Nolanea versatilis
Claudopus nidulans
Plate CXVI. Amanita verna
Plate CXVII. Amanita porphyria
Plate CXVIII. Amanita spreta
Plate CXIX. Amanita cothurnata
Plate CXX. Amanita chrysoblema
Plate CXXI. Amanita rubescens
Plate CXXII. Amanita flavorubescens
Plate CXXIII. Amanita flavoconia
Plate CXXIV. Amanita spissa
Plate CXXV. Amanitopsis vaginata
Plate CXXVI. Amanitopsis vaginata
Plate CXXVII. Lepiota fischeri
Plate CXXVIII. Lepiota clypeolaria
Plate CXXIX. Lepiota granosa
Plate CXXX. Lepitoa cepaestipes
Plate CXXXI. Lepiota eristata
Plate CXXXII. Lepiota procera
Plate CXXXIII. Fairy Ring of Lepiota morgani
Plate CXXXIV. Lepiota morgani
Plate CXXXV. Lepiota naucina
Plate CXXXVI. Lepiota naucina
Plate CXXXVII. Armillaria caligata
Plate CXXXVIII. Armillaria mellea
Plate CXXXIX. Armillaria mellea
Plate CXL. Armillaria mellea var. exannulata
Plate CXLI. Pleurotus ulmarius
Plate CXLII. Pleurotus ostreatus
Plate CXLIII. Pleurotus lignatilis
Plate CXLIV. Pleurotus fimbriatus var. regularis
Plate CXLV. Pleurotus albolanatus
Plate CXLVI. Tricholoma ustale
Plate CXLVII. Tricholoma nobile
Plate CXLVIII. Tricholoma aere
Plate CXLIX. Tricholoma terreum
Tricholoma fuligineum
Plate CL. Tricholoma laticeps
Plate CLI. Tricholoma acerbum
Plate CLII. Tricholoma tumidum
Plate CLIII. Tricholoma cinerascens
Plate CLIV. Clitocybe piccina
Plate CLV. Clitocybe maxima
Plate CLVI. Clitocybe praecox
Plate CLVII. Clitocybe multiceps
Plate CLVIII. Clitocybe infundibuliformis
Plate CLIX. Clitocybe cyathiforme
Clitocybe morbifera
Plate CLX. Collybia dryophila
Plate CLXI. Collybia strictipes
Plate CLXII. Collybia alcalinolens
Plate CLXIII. Collybia familia
Plate CLXIV. Collybia hygrophoroides

Plate CLXV.....Collybia plexipes
Plate CLXVI.....Collybia abundans
Plate CLXVII.....Collybia radicata
Plate CLXVIII.....Collybia velutipes
Plate CLXIX.....Collybia floccipes
Mycena sp.
Plate CLXX.....Mycena inclinata var.
Plate CLXXI.....Omphalia epichysium
Omphalia gracillima
Plate CLXII.....Omphalia campanella

NYCTALIS ASTEROPHORA.

D. H. HILL LIBRARY
North Carolina College

CANTHERELLUS CLAVATUS.

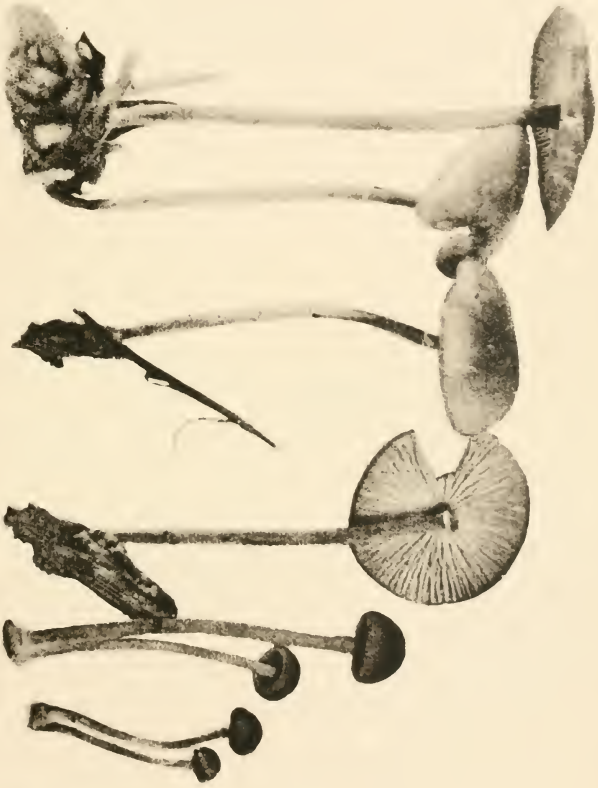
CANTHERELLUS CINNABARINUS.

CANTHERELLUS CIBARIUS.

PANUS STRIGOSUS

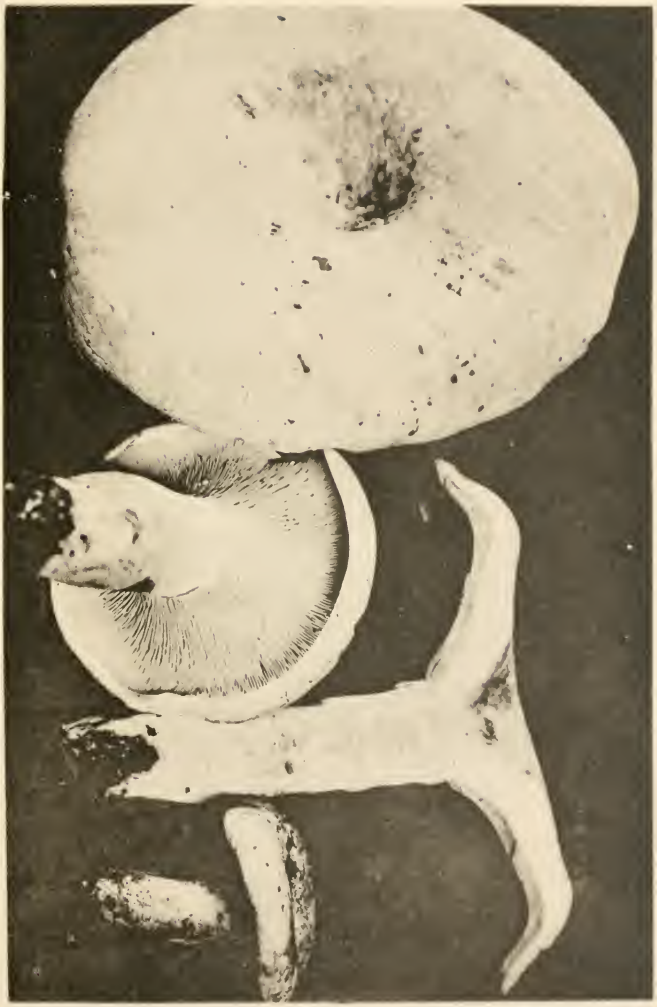
PANUS RUDIS.

LENTINUS LEPIDEUS.



MARASMIUS URENS.

MARASMIUS DAUCINUS.



LACTARIUS PIPERATUS.

LACTARIUS INSULSUS.

LACTARIUS DELICIOSUS.

LACTARIUS VOLEMUS.

D. H. HILL LIBRARY
North Carolina State College

LACTARIUS CAMPHORATUS.

RUSSULA SORDIDA

RUSSULA OF IRALEUCOIDES.

RUSSULA PULVERULENTA

RUSSULA FOETENS.

RUSSULA MARIAE.

RUSSULA RUBESCENS.

RUSSULA TENUICEPS.

RUSSULA PURPURINA.

RUSSULA LUTEA

GOMPHIDIUS MACULATUS

HYGROPHORUS SPECIOSUS.

HYGROPHORUS OLIVACEO-ALBUS.

HYGROPHORUS RUSSULA.

HYGROPHORUS SORDIDUS.

HYAROPHOLIS FLOWERS VAR. OCCIDENTALIS

HYGROPHORUS PALLIDUS.

HYGROPHORUS EROUBESCENS.

HYGROPHORUS COCCINEUS.

HYGROPHORUS MARGINATUS.

COPYRIGHTED MATERIAL

COPRINUS INSIGNIS.

COPRINUS QUADRIFIDUS.

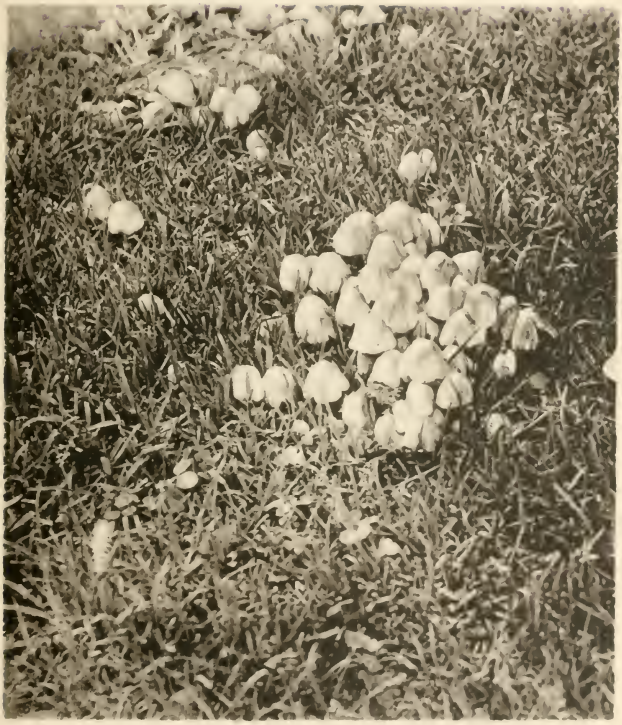
COPRINUS EBULBOSUS.

COPRINUS EBULBOSUS.

COPRINUS LANIGER.

COPRINUS VOLUTATULUS

COPRINUS DOMESTICUS



COPRINUS MICACEOUS

COPRINUS ATRAMENTARIUS.

COPRINUS DISSEMINATUS.

COPRINUS SEPTENTRIONALIS

COPRINUS SEPTENTRIONALIS

COPRINUS MACROSPORUS

COPRINUS MICACEUS.

COPRINUS ATRAMENTARIUS.

COPRINUS EPHEMERUS Bulletin

COPRINUS EPHEMERUS Bulletin

PANÆOLUS SOLIDIPES.

PSALLIOTA RODMANI.

PSALLIOTA ARVENSIS.

PSALLIOTA ARVENSIBULBA.

PSALLIOTA SUBRUFESCENS.

PSALLIOTA SUBRUFESCENS.

PSALTRIA SUBPUNCTATA.

PSALTRIA DIMINUTA.

PROCHLOA CHRONATECENS

HAPLOLOMA SUBLAMELLATUM

H. PROCAK, ATHENS, GEORGIA

HYPHOLOMA VELUTINUS.

PSILOCYBE SP., PSATHYRA SP., AND TUBARIA SP.

PSILOCYBE ATROBRUNNEA.

PSATHYRA UMBONATA.

PSILOCYBE LARGA.

PSILOCYBE CARNEA.

PUBLICA TRACON

PHOLIOTA DESTRUENS

PHOLIOTA SPECTABILIS.

CORTINARIUS CALOCHROUS

CORTINARIUS MUCIFLUUS.

Missouri Botanical Garden
Biodiversity Library

Digitized by Internet Archive in
2011

CORTINARIUS CYLINDRIPES

CORTINARIUS SPHOEROSPORUS.

CORTINARIUS IODEOIDES.

CORTINARIUS ATKINSONIANUS.

PHOLIOTA AERUGINOSA.

CORTINARIUS ELEGANTIOIDES

CORTINARIUS SPHEROSPERMA

CORTINARIUS PURPURASCENS.

CORTINARIUS FULMINEUS VAR. SULPHUREUS

CORTINARIUS INTRUSUS.

CORTINARIUS INFRACTUS.

CORTINARIUS SUBPULCHRIFOLIUS.

CORTINARIUS BOLARIS.

CORTINARIUS ANNULATUS.

CORTINARIUS FLAVIFOLIUS.

CORTINARIUS FLAVIFOLIUS

CORTINARIUS CROCEOCOLOR

COPEPODA: POECILOSTOMATOUS

CORTINARIUS ARMILLATUS

CORTINARIUS ARMILLATUS.

CORTINARIUS BADIUS

CORTINARIUS LIGNARIUS

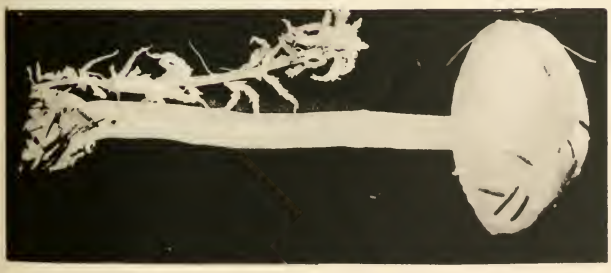
CORTINARIUS DISTANS

CORTINARIUS PALEACEUS

INOCYBE CALOSPORA

INOCYBE FIBROSA

INOCYBE REPANDA.



PLUTEOLUS RETICULATUS.

NAUCORIA SEMIORBICULARIS

VOLVARIA PUSILLA

CHAMAEOTA SPHAEROSPORA

PLUTEUS CERVINUS

ENTOLOMA RHODOPOLIUM.

ENTOLOMA SERICEUM.

PSILOCYBE STRICTIPES

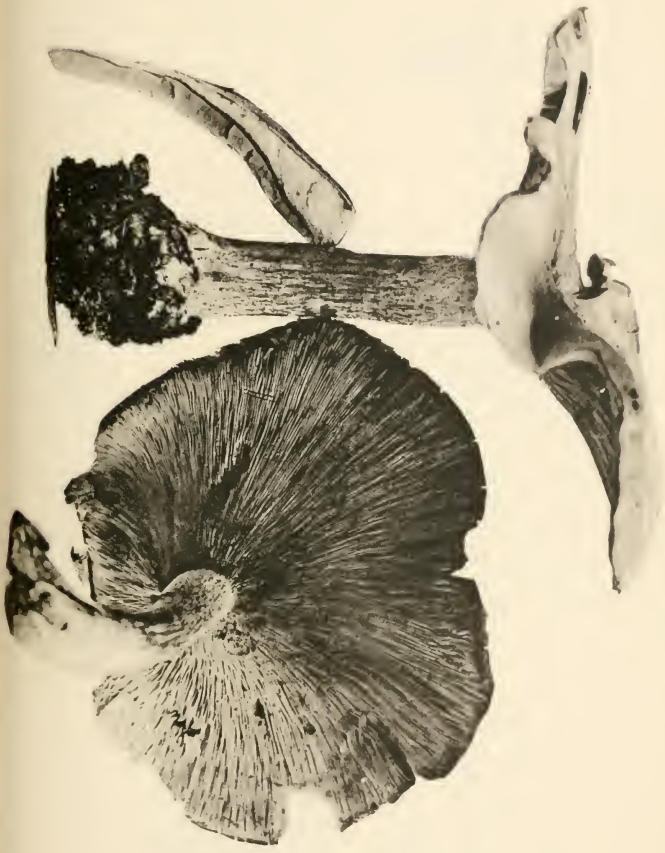
ENTOLOMA GRAYANUM.

ENTOLOMA PECULIUM

ENTOLOMA CUSPIDATUM.

CLITOPHILUS ABORTIVUS.

CLITOPILUS CAESPITOSUS



LEPTONIA PLACIDA.

LEPTONIA ROSEA.

NOLEANA VERSATILIS.

CLAUDOPUS NIDULANS.

AMANITA VERNA.

AMANITA PORPHYRIA.

AMANITA SPRETA

AMANITA CHRYSOBLEMA.

AMANITA RUBESCENS

AMANITA FLAVORUBESCENS

AMANITA FLAVOCONIA.

AMANITOPSIS PANTHERINA (DC.)

AMANITOPSIS VOLVATA

LEPIOTA FISCHERI.

LEPIOTA CLYPEOLARIA.

LEPIOTA GRANOSA

LEPIOTA CRISTATA.

Michigan Geological and
Biological Survey.

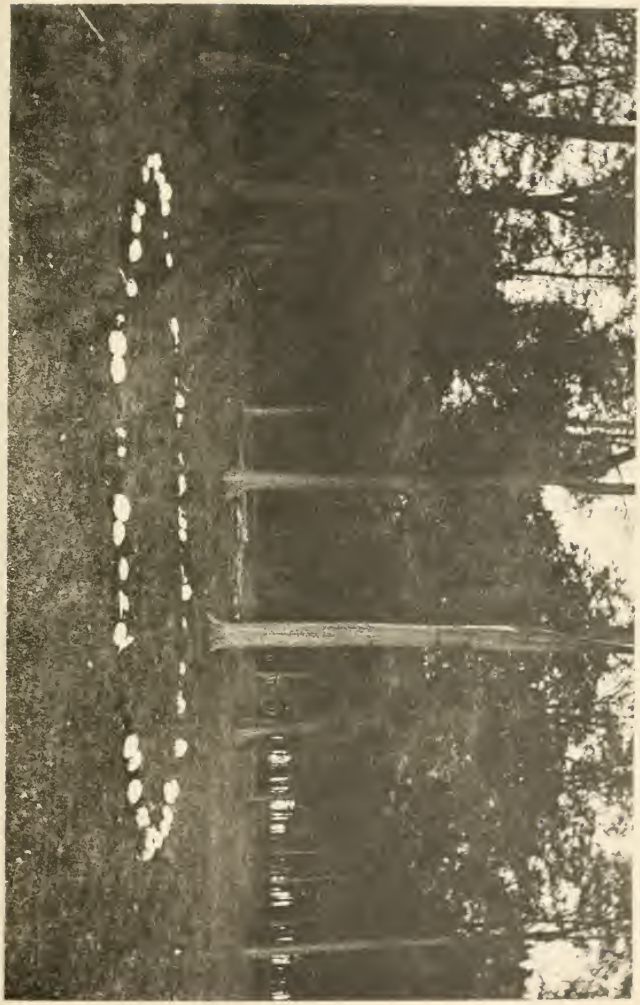
Publications of the Biological Series.
Plate XXXII

LAWN FORM

FOREST FORM

LEPIOTA CRISTATA.

LEPIOTA PROCERA.



FAIRY RING OF LEPIOTA MORGANI

LEPIOTA MORGANI.

LEPIOTA NAUCINA.

Digitized by the Internet Archive
in 2022 with funding from
University of Michigan Library

LEPIOTA NAUCINA

ARMILLARIA CALIGATA

ARMILLARIA MELLEA

ARMILLARIA MELLEA.

ARMILLARIA MELLEA VAR. EXANNULATA.

PLEUROTUS ULMARIUS.

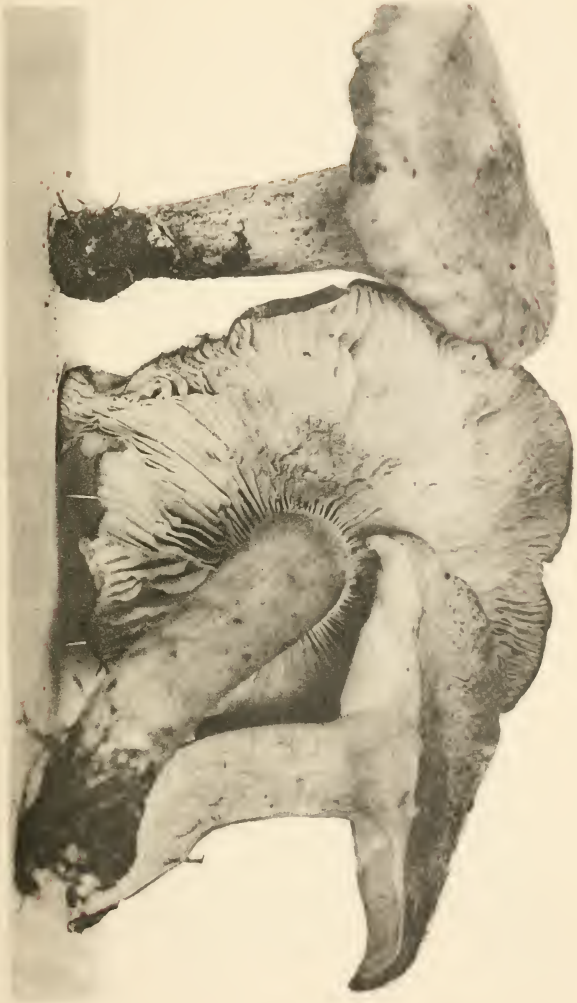
PLEUROTUS OSTREATUS.

PLEUROTUS LIGNATILIS.

PLEUROTUS FIMBRIATUS VAR. REGULARIS.

PLEUROTUS ALBOLANATUS

TRICHOLOMA U. TALE.



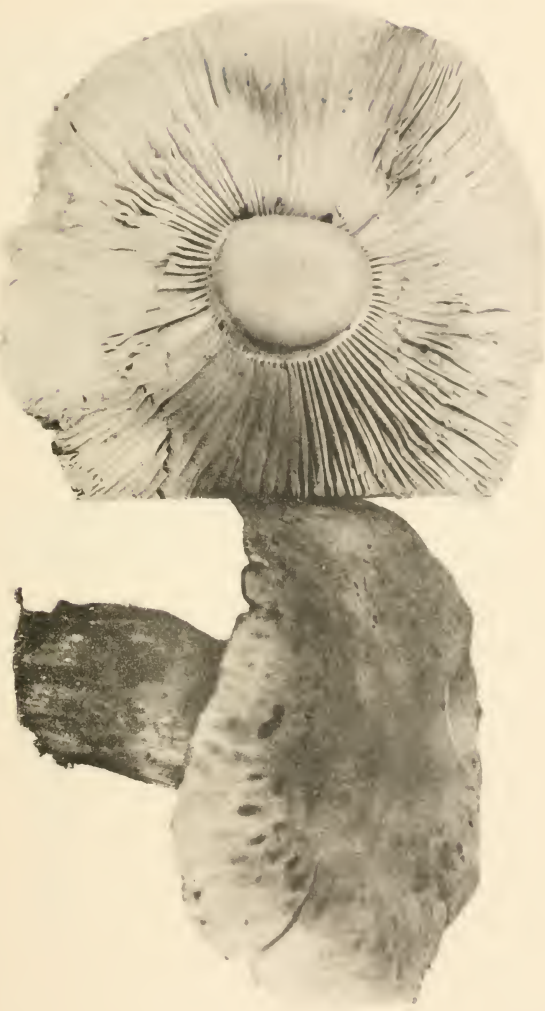
TRICHOLOMA ACRE

TRICHOLOMA TERREUM.

TRICHOLOMA PULIGINEUM.

TRICHOLOMA LATICEPS.

TRICHOLOMA ACERUBM.



TRICHOLOMA TUMIDUM.

CLITOCYBE PICEA.

CLITOCYBE MAXIMA (Reduced one-third)

CLITOCYBE PRAECOX.

CLITOCYBE CYATHIFORMIS

CLITOCYBE MORBIFERA

COLLYBIA DRYOPHILA

COLLYBIA STRIATIPES.

COLLYBIA ALCALINOLENS.

COLLYBIA FAMILIA.

COLLYBIA HYGROPHOROIDES.

COLLYBIA PLEXIPES.

COLLYBIA ABUNDANS.

COLLYBIA RADIATA.

Michigan Geological and
Biological Survey

COLLYRIA VELUTIPES.

VOLVARIA BOMBYCINA

MYCENA sp.

MYCENA INCLINATA VAR.

OMPHALIA UMBELLIFERA.

D. H. HILL LIBRARY
North Carolina State College